

ABSTRACT OF THE DISCLOSURE

A photomask designing method used in a lithography process, the lithography process comprises illuminating light on a photomask and converging the light which  
5 has passed through the photomask on a photosensitive substrate via a projection optical system, the photomask designing method comprises acquiring a transmittance characteristic of the projection optical system, the characteristic varying depending  
10 on a difference in optical paths of light in the projection optical system, the light passing through the projection optical system, and acquiring mask bias of the photomask by use of the transmittance characteristic of the projection optical system.